

DERWENT-ACC-NO: 1999-295086
DERWENT-WEEK: 199926
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TITLE: Permanent magnet motor for turbogenerator of hybrid electric vehicle,
molecular pump - has holder whose thickness is set greater than peripheral
direction width of slit of stator core

PATENT-ASSIGNEE: HITACHI LTD[HITA]

PRIORITY-DATA: 1997JP-0267727 (September 12, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES
MAIN-IPC			
JP 11098728 A	April 9, 1999	N/A	005
H02K 001/27			

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
JP11098728A	N/A	1997JP-0267727
September 12, 1997		

INT-CL_(IPC): H02K001/16; H02K001/27 ; H02K015/03 ; H02K021/14

ABSTRACTED-PUB-NO: JP11098728A

BASIC-ABSTRACT: NOVELTY - A rotor (3) has a rotor core (8) that has permanent magnets (6) at periphery. The permanent magnets are supported by a holder (7).

The thickness (hb) of the holder is set greater than the peripheral direction width (hs) of the slit (44). DETAILED DESCRIPTION - The stator (2) has a stator core (4) that includes a stator gear (41) and a yoke (42). The stator winding wire (5) is inserted in the slits (44) of the slot (43) of the stator. The thickness (hm) of the permanent magnet is set smaller than thickness (hb) of the holder.

USE - For turbogenerator of hybrid electric vehicle, molecular pump.

ADVANTAGE - Reduces weight and size of motor by using efficient permanent magnet. Improves speed range of motor by increasing strength of holder. Reduces electrical eddy current generation in permanent magnet surface by setting thickness of holder larger than radial length of slit. Improves efficiency of motor by canceling flux that flows in magnet. DESCRIPTION OF

DRAWING(S) - The figure shows front view of stator of permanent magnet motor.

(2) Stator; (3) Rotor; (4) Stator core; (5) Stator winding wire; (6) Permanent magnet; (7) Holder; (8) Rotor core; (41) Stator gear; (42) Yoke; (43)

L Number	Hits	Search Text	DB	Time stamp
1	1	("5568023").PN.	USPAT	2002/05/29 17:26
2	4	((("5568023") or ("6175172") or ("5965991") or ("5806617"))).PN.	USPAT	2002/05/29 17:26
3	2	((("5568023") or ("6175172") or ("5965991") or ("5806617"))).PN.) and \$7capacitor	USPAT	2002/05/29 17:27
-	170	(290/40c).CCLS.	USPAT	2001/02/16 06:04
-	28	((("290/40c").CCLS.) and "hybrid"	USPAT	2001/02/15 12:26
-	776	180/65.2	USPAT	2001/02/15 12:27
-	320	180/65.2 and "hybrid" and "vehicle"	USPAT	2001/02/15 12:28
-	136	(180/65.2 and "hybrid" and "vehicle") and "converter"	USPAT	2001/02/15 12:28
-	103	(180/65.2 and "hybrid" and "vehicle") and "inverter"	USPAT	2001/02/15 12:30
-	53	(180/65.2 and "hybrid" and "vehicle") and "inverter" and "converter"	USPAT	2001/02/15 12:50
-	52	((180/65.2 and "hybrid" and "vehicle") and "inverter" and "converter") and "battery"	USPAT	2001/02/16 07:29
-	253	322/16	USPAT	2001/02/15 13:51
-	35	322/16 and "hybrid" and "vehicle"	USPAT	2001/02/15 14:12
-	876	290/40r	USPAT	2001/02/15 14:12
-	139	290/40a	USPAT	2001/02/15 14:15
-	11	290/40a and "hybrid" and "vehicle"	USPAT	2001/02/15 14:17
-	22	290/40r and "hybrid" and "vehicle"	USPAT	2001/02/15 14:23
-	8086	"hybrid" and "vehicle"	USPAT	2001/02/15 14:24
-	239	("hybrid" and "vehicle") and "converter" and "inverter"	USPAT	2001/02/15 14:25
-	80	((("hybrid" and "vehicle") and "converter" and "inverter") and "bus"	USPAT; EPO; JPO; DERWENT	2001/02/15 14:25
-	1	("5939861").PN.	USPAT	2001/02/16 06:25
-	4	((("5964991") or ("5568023") or ("5969624") or ("5924505"))).PN.	USPAT	2001/02/16 07:15
-	3	((("6054844") or ("5806617") or ("6098733"))).PN.	USPAT	2001/02/16 06:57
-	1	((("5964991") or ("5568023") or ("5969624") or ("5924505"))).PN.) and "magnet"	USPAT	2001/02/16 06:57
-	1	((("5964991") or ("5568023") or ("5969624") or ("5924505"))).PN.) and "load"	USPAT	2001/02/16 07:17
-	3	((("6054844") or ("5806617") or ("6098733"))).PN.) and "load"	USPAT	2001/02/16 07:17
-	52	((180/65.2 and "hybrid" and "vehicle") and "inverter" and "converter") and "battery"	USPAT	2001/02/16 07:29
-	0	((180/65.2 and "hybrid" and "vehicle") and "inverter" and "converter") and "battery") and "resistive load"	USPAT	2001/02/16 07:30
-	34	((180/65.2 and "hybrid" and "vehicle") and "inverter" and "converter") and "battery") and "load"	USPAT	2001/02/16 07:30
-	2	((180/65.2 and "hybrid" and "vehicle") and "inverter" and "converter") and "battery") and "load") and "dissipate"	USPAT	2001/02/16 07:35
-	25	"hybrid" and "vehicle" and "resistive load"	USPAT	2001/02/16 07:36
-	8	("hybrid" and "vehicle" and "resistive load") and "bus"	USPAT	2001/02/16 07:36
-	11	((("5806617") or ("5568023") or ("6054844") or ("5924505") or ("5969624") or ("5965991") or ("5285862") or ("6137250") or ("5939861") or ("5848659") or ("5753989"))).PN.	USPAT	2002/05/29 17:04
-	0	((("5806617") or ("5568023") or ("6054844") or ("5924505") or ("5969624") or ("5965991") or ("5285862") or ("6137250") or ("5939861") or ("5848659") or ("5753989"))).PN.) and turbo\$ near generat\$7	USPAT	2002/05/29 14:28

-	99	((("5752380") or ("5903116") or ("6020713") or ("6031294") or ("6093975") or ("6265786") or ("6325142") or ("6175172") or ("3591844") or ("3922739") or ("4077213") or ("RE31111") or ("4896101") or ("4903537") or ("4905810") or ("5360195") or ("5577703") or ("5589758") or ("5819524") or ("5850733") or ("5873235") or ("6023135") or ("6049195") or ("6070404") or ("6213234") or ("6213234") or ("4577280") or ("5953902") or ("6070405") or ("6169334") or ("6194794") or ("6281601") or ("6355987") or ("5726661") or ("5663626") or ("6087791") or ("6155062") or ("4488100") or ("4503940") or ("4552041") or ("4776097") or ("4845969") or ("4856965") or ("4879500") or ("4909622") or ("4980784") or ("5019956") or ("5351439") or ("5366424") or ("5382104") or ("5448295") or ("5457372") or ("5485068") or ("5500841") or ("5501455") or ("5517064") or ("5573382") or ("5610490") or ("5656907") or ("5692985") or ("5692733") or ("5697829") or ("5724074") or ("5762766") or ("5902207") or ("5914582") or ("5941690") or ("5945671") or ("5949663") or ("5946926") or ("6066934") or ("6107926") or ("6135450") or ("4446700") or ("4488072") or ("4551980") or ("5799484") or ("3616334") or ("3704499") or ("3910381") or ("3836822") or ("4041210") or ("4048012") or ("4152610") or ("4122356") or ("4249083") or ("4267475") or ("4302813") or ("4331882") or ("4345434") or ("4350910") or ("4380147") or ("4396347") or ("4416849") or ("4429244") or ("4455835") or ("4495424") or ("4508276") or ("4537032") or ("4555637")) .PN.	USPAT	2002/05/29 14:29
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-	516	"5752380" "5903116" "6020713" "6031294" "6093975" "6265786" "6325142" "6175172" "3591844" "3922739" "4077213" RE31111 "4896101" "4903537" "4905810" "5360195" "5577703" "5589758" "5819524" "5850733" "5873235" "6023135" "6049195" "6070404" "6213234" "6213234" "4577280" "5953902" "6070405" "6169334" "6194794" "6281601" "6355987" "5726661" "5663626" "6087791" "6155062" "4488100" "4503940" "4552041" "4776097" "4845969" "4856965" "4879500" "4909622" "4980784" "5019956" "5351439" "5366424" "5382104" "5448295" "5457372" "5485068" "5500841" "5501455" "5517064" "5573382" "5610490" "5656907" "5692985" "5692733" "5697829" "5724074" "5762766" "5902207" "5914582" "5941690" "5945671" "5949663" "5946926" "6066934" "6107926" "6135450" "4446700" "58998101.wsp" "4551980"	USPAT	2002/05/29 14:29
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-	3	(((("5752380") or ("5903116") or ("6020713") or ("6031294") or ("6093975") or ("6265786") or ("6325142") or ("6175172") or ("3591844") or ("3922739") or ("4077213") or ("RE31111") or ("4896101") or ("4903537") or ("4905810") or ("5360195") or ("5577703") or ("5589758") or ("5819524") or ("5850733") or ("5873235") or ("6023135") or ("6049195") or ("6070404") or ("6213234") or ("6213234") or ("4577280") or ("5953902") or ("6070405") or ("6169334") or ("6194794") or ("6281601") or ("6355987") or ("5726661") or ("5663626") or ("6087791") or ("6155062") or ("4488100") or ("4503940") or ("4552041") or ("4776097") or ("4845969") or ("4856965") or ("4879500") or ("4909622") or ("4980784") or ("5019956") or ("5351439") or ("5366424") or ("5382104") or ("5448295") or ("5457372") or ("5485068") or ("5500841") or ("5501455") or ("5517064") or ("5573382") or ("5610490") or ("5656907") or ("5692985") or ("5692733") or ("5697829") or ("5724074") or ("5762766") or ("5902207") or ("5914582") or ("5941690") or ("5945671") or ("5949663") or ("5946926") or ("6066934") or ("6107926") or ("6135450") or ("4446700") or ("4488072") or ("4551980") or ("5799484") or ("3616334") or ("3704499") or ("3910381") or ("3836822") or ("4041210") or ("4048012") or ("4152610") or ("4122356") or ("4249083") or ("4267475") or ("4302813") or ("4331882") or ("4345434") or ("4350910") or ("4380147") or ("4396347") or ("4416849") or ("4429244") or ("4455835") or ("4495424") or ("4508276") or ("4537032") or ("4555637"))).PN.) and hybrid near3 vehicle	USPAT	2002/05/29 14:29
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-	6	("5752380" "5903116" "6020713" "6031294" "6093975" "6265786" "6325142" "6175172" "3591844" "3922739" "4077213" RE31111 "4896101" "4903537" "4905810" "5360195" "5577703" "5589758" "5819524" "5850733" "5873235" "6023135" "6049195" "6070404" "6213234" "6213234" "4577280" "5953902" "6070405" "6169334" "6194794" "6281601" "6355987" "5726661" "5663626" "6087791" "6155062" "4488100" "4503940" "4552041" "4776097" "4845969" "4856965" "4879500" "4909622" "4980784" "5019956" "5351439" "5366424" "5382104" "5448295" "5457372" "5485068" "5500841" "5501455" "5517064" "5573382" "5610490" "5656907" "5692985" "5692733" "5697829" "5724074" "5762766" "5902207" "5914582" "5941690" "5945671" "5949663" "5946926" "6066934" "6107926" "6135450" "4446700" "4188072" "4551980" "-----"	USPAT	2002/05/29 14:31
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-	2	turbogenerator near2 motor and hybrid near3 vehicle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/29 14:33
-	0	turbogenerator/motor and hybrid near3 vehicle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/29 14:34
-	9	turbogenerator and hybrid near3 vehicle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/29 14:43
-	42	generator/motor and hybrid near3 vehicle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/29 14:40
-	0	(converter inverter) near12 (DC adj bus) near12 (AC adj3 DC) near12 (DC adj3 AC) and hybrid adj vehicle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/29 14:48
-	14	(converter inverter) near12 (AC adj3 DC) near12 (DC adj3 AC) and hybrid adj vehicle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/29 14:48
-	1	(converter inverter) same (DC adj bus) same (AC adj3 DC) same (DC adj3 AC) and hybrid adj vehicle	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/29 15:03